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ABSTRACT

The Cyberspace Regionalization Project uses advanced audio-visual telecommunications to bridge gaps of geography and socioeconomic status between two New Jersey high schools, one white and affluent and one black and low income. Using audio-visual links provided by Intel ProShare software and equipment, students and teachers from the two schools work together on a variety of curricular and co-curricular activities. Real-time images of the students are displayed on a computer monitor while they work together on various projects such as a science experiment or an electronic literary magazine. Teachers, trained under a grant from AT&T, design the interactions and supervise the students throughout the project. The major goals of the project are to: (1) Create an infrastructure of telecommunications to connect two high schools separated by 70 miles; (2) Familiarize and train teachers and students at both schools in its use; (3) Create programs or activities to bring the students and teachers together; (4) Apply those programs to issues or racial understanding; and (6) Apply those programs to improvement and reform in the two schools. One of the challenges of the project lay in developing updated measures of racial attitudes that address salient contemporary issues and that are appropriate for high school age students. Two multidimensional, multi-factor measures of racial attitudes were developed. The racial attitude instruments were administered to all of the ninth-grade students in both high schools in the fall of the school year 1998-99. The ultimate posttest is to consist of a re-administration of the instruments to remaining members of the cohort shortly before graduating high school. Baseline results revealed a significant amount of variance in student racial attitudes among and between groups. (Contains 11 references.) (AEF)

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The Cyberspace Regionalization Project: Simultaneously Bridging the Digital and Racial Divide

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The Cyberspace Regionalization Project:

Simultaneously Bridging the Digital and Racial Divide

I. Introduction
II. Description of the Project
III. Theory of the Project
IV. Measuring Racial Attitudes: The Evaluation Piece
V. Baseline Results and Research Agenda
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I. INTRODUCTION

As this century nears its end, we are a decade into the resegregation of our nation's schools...It has been 45 years since *Brown v. Board of Education* outlawed intentional segregation in the south, but a series of Supreme Court decisions in the 1990's helped push the country away from *Brown*'s celebrated ideals and closer to the old idea of "separate but equal."[1]

As many of the major school districts throughout the country have recently ended or phased out their desegregation plans[2], even some of the most ardent supporters of desegregation have conceded, preferring (in the words of Brown University's Michael Alves) to "make Plessy work"- alluding to the 1896 U.S. Supreme Court decision that allowed "separate but equal" public facilities - by waging a piecemeal attack on educational inequity.[3] Where high-poverty schools are failing, they are given extra money in compensatory funding. Where the curriculum is weak, standards are raised. And if teachers in such schools are underqualified, professional development is enhanced.

Though in totality these individual initiatives are not going to make up for the inequities that are a natural result of resegregation, each is worthy of support irrespective of whether or not you are in favor of "making Plessy work." They are worthy of support because they will help improve traditional educational outcomes such as student achievement. But, what about the non-traditional outcomes? What about the intangible benefits of interracial contact; "those qualities which are incapable of measurement but which make for greatness in a...school"[4] Weren't these intangible benefits of interracial contact the very essence of the *Brown* decision and its precedents?

If we accept, for now, that resegregation is a present reality, and that Caucasian students are going to be in different schools than minority students, is there a way to generate the kind of interracial contact that creates the sort of intangible benefits the Supreme Court believed would emanate from desegregation? Digital telecommunications may be one means to that end. Consider the Cyberspace Regionalization Project.

II. DESCRIPTION OF THE PROJECT

The Cyberspace Regionalization Project uses advanced audio-visual telecommunications to bridge gaps of geography (70 miles) and socioeconomics between two New Jersey high schools, one white and affluent and

the other black and low income. Table 1 displays some of those gaps.

TABLE 1.

	ASBURY PARK H.S. (Monmouth County)	HUNTERDON CENTRAL REGIONAL H.S. (Hunterdon County)
ENROLLMENT	757	2005
CAUCASIAN STUDENTS (%)	4	95
STUDENT MOBILITY (%)	35	8
DROPOUT RATE (%)	10	2
POST-SECONDARY STUDY (all types) (%)	65	91
PER-PUPIL EXPENDITURE	$9,293	$11,633
HPST PASS RATES (%):		
All areas	41	91
Reading	59	94
Mathematics	76	98
Writing	56	97

Using audio-visual links provided by Intel ProShare software and equipment, students and teachers from the two high schools work together on a variety of curricular and co-curricular activities. Much like corporate executives conducting a video tele-conference, real-time images of the students are displayed on a computer monitor while they work together on various projects such as a science experiment or an electronic literary magazine. Teachers, trained under a grant from AT&T[5] design the interactions and supervise the students throughout the project.

III. THEORY OF THE PROJECT

While the unfortunate consequences of the "digital divide" between races and social classes are often remarked, the Cyberspace Regionalization Project is a unique test of the ability of telecommunications to increase the social purposes served by schools. The major goals of the Project are to:

1. Create an infrastructure of telecommunications to connect two high schools separated by 70 miles
2. Familiarize and train teachers and students at both schools in its use

3. Create programs or activities to bring the students and teachers together
4. Apply those programs to issues of racial understanding, and
5. Apply those programs to improvement and reform in the two schools

These project goals are loosely based on the "Contact Hypothesis" posited as early as 1954 by Gordon Allport[6]. In its most basic form, this hypothesis holds that, under ideal conditions, contact with members of different cultural groups promotes positive, tolerant attitudes. These ideal conditions include:

1. contact involving persons of equal status
2. contact taking place under cooperative conditions
3. contact that is actively supported by powerful authorities

Cyberspace Regionalization appears to meet all of these conditions, since equal status (students) people of different races are working together on a project designed and supervised by teachers and authorized by school district administrators.

IV. MEASURING RACIAL ATTITUDES: The Evaluation Piece

Four decades of empirical research yielded considerable evidence that contact under the conditions described above has beneficial consequences. However, most of that research is now quite dated and often neglected considering the racial attitudes of young people and people of African descent. One of the challenges to evaluating the Cyberspace Regionalization Project lied in developing updated measures of racial attitudes that address salient contemporary issues and that are appropriate for high school-age students.

A. "Old Fashioned Racism." Racial attitude research has prompted a number of theoretical orientations and alternative measures in the past several decades[7]. Racial attitude measures were traditionally comprised of items attempting to assess what has now come to be known as "Old-Fashioned" or "Dominative Racism". An individual with old-fashioned racist attitudes is someone who acts out bigoted beliefs. Prejudice measures that tapped social distance, hostility and derogatory beliefs represent that orientation.

After about 1965, however, standard racial attitude measures had two problems. First, by the middle 1960's, most white people knew the socially desirable answers so that the then standard items were more likely to trigger politically correct responses than valid attitudes. Second, that generation of items did not correlate well with what should have been racially relevant behavior, for example, reported voting intentions or hiring decisions. Replacement items were then developed. The new items that correlated best with racially relevant behavior were those of an abstract, moral tone, or items that used code words or symbols for blacks. These items were thought to tap a new form of racism called "symbolic racism."[8]

B. "Modern Racism." Around 1978, led by John McConahay et. al., symbolic racism was re-named as "modern racism" to emphasize the contemporary nature. The principal tenets of modern racism are as follows.

1. Discrimination is a thing of the past because blacks now have the freedom to compete in the marketplace and to enjoy those things they can afford.
2. Blacks are pushing too hard, too fast and into places where they are not wanted.
3. The tactics and demands of activists are unfair.
4. Therefore, recent gains are undeserved.
5. The prestige granting institutions of society are giving blacks more attention and status than they deserve.
6. Racism is bad.

7. The beliefs of modern racism do not qualify as racist because they are alleged to be empirically grounded.[9]

Thus, those whose beliefs are described as modern racism do not define their own beliefs and attitudes as racist.

C. "Aversive Racism." Around 1986, Gaertner and Dovidio developed the concept of "Aversive Racism". According to this orientation, many white Americans with strong egalitarian values simultaneously have negative feelings and beliefs about blacks. Attitudes need not be consistent and in this case may be the result of conflict between cognition and socialization. Because aversive racists put a high value on egalitarian beliefs, the contradiction between those feelings and racial attitudes is handled by excluding the racist feelings from awareness. Aversive racists also typically avoid close contact with minorities or communicate their underlying negative attitudes in subtle, rationalizable ways. Their negativity is likely to be demonstrated in discomfort, uneasiness, fear, or avoidance of minorities rather than in outward hostility. The subtlety of this "aversive" behavior (in effect, a non-behavior) makes it difficult to document aversive racism through the techniques of behavioral research.[10]

D. The Case for Development of a Multi-factor Racial Attitude Assessment Instrument. Although there has been a considerable investment in studying individual and group racial attitudes using the orientations just described, the differences among the types have yet to be conclusively demonstrated. That recommends an eclectic approach. Additionally, there is a line of research that suggests that racial attitudes are organized around content areas or social issues that change over time. Thus, attitudes ebb and flow with variation in racial interactions and in social and political events.

This is the approach adopted for evaluating the Cyberspace Regionalization Project. By piloting and analyzing scores on a pool of items from various sources, two multidimensional, multi factor measures of racial attitudes were developed.[11] The individual items used came from the following sources:

- The National Opinion Research Center (NORC) at the University of Chicago. All NORC data are based on face-to-face interviewing.
- The Institute for Social Research (ISR) at the University of Michigan. The University's Survey Research Center and the Center for Political Studies are noted for their national election analysis. With minor exceptions, ISR data are also based on face-to-face interviewing.
- The Gallup Organization. Gallup employed face-to-face interviewing over most of its history, but shifted to telephone interviewing in the late 1980's.
- CBS/New York Times public opinion polls.
- Florida State University Professor John Brigham's "Attitude Toward Whites (ATW)" and "Attitude Toward Blacks (ATB)" instruments which were developed for and normed on a college student population.

Some of the survey items tap into similar themes or dimensions as previous research about adult attitudes (c.f., McConahay and Brigham). For example, a number of questions ask students about interracial relationships. Factor analysis allowed us to determine if there was, in fact, an intercorrelation among these items. Factor analysis refers to a family of analytic techniques designed to identify components or dimensions, that underlie the relations among a set of theoretically linked items. Exploratory factor analysis is used to determine which items are meaningfully correlated with the factor presumed to be measured (e.g. interracial relationships). Confirmatory factor analysis is applied to estimate the weights of the individual items on the factors.

Factor analysis of the preliminary data revealed and confirmed the following factors within the two racial attitude assessment instruments. Each factor consists of anywhere from three to seven questions.

Hunterdon Central CRHS SURVEY	ASBURY PARK HS SURVEY
Personal Relations	White Attitude Expectations
Social Justice / Anti-Discrimination	Differences Between the Races
Old-Fashioned Racism	Discrimination
Modern Racism	Personal Relations I (Social Distance)
Social Distance	Personal Relations II (Social Interaction)

One of the benefits of using a multidimensional assessment tool is that we will not have to rely on individual item analysis nor will we have only a single, aggregate racial attitude score. For each student involved in the study, we will have a set of racial attitude factor scores with more room for variation and growth estimation over time than would be the case with individual item analysis.

V. BASELINE RESULTS AND RESEARCH AGENDA

The Cyberspace Regionalization Project Evaluation follows a cohort of students throughout their high school experiences and their increasing exposure to Cyberspace Regionalization. The racial attitude instruments were administered to all of the ninth-grade students in both high schools in the fall of this past school year (1998-99). The ultimate posttest will consist of a re-administration of the instruments to remaining members of the cohort shortly before graduating high school. Exposure to Cyberspace Regionalization and intergroup contact will be monitored and documented throughout the evaluation period.

Baseline results revealed a significant amount of variance in student racial attitudes among and between groups. The pretest data are mostly a point of comparison against the posttest results, but at least one substantive result stood out as particularly interesting. The Hunterdon Central students have less contact with people of African descent than the Asbury Park students have with Caucasian people. Said another way, Hunterdon Central is more racially isolated than Asbury Park. However, despite being more racially isolated, Hunterdon Central students were more comfortable, on average, interacting with students of other races than were Asbury Park students.

VI. CONCLUSIONS

Cyberspace Regionalization engages two of education's persistent problems---equity and school reform. The activities depart dramatically from the standard menu of imposed programs wrapped in supposed solutions. For 40 years, New Jersey has maintained an extensive (and not uncommon) menu of policy initiatives for both racial isolation and school improvement---busing, magnet schools, cadres of special teachers and special curriculum plus a constant strain for reform in school finance. Each has made some difference but not enough. Students remain advantaged or impeded by accidents of birth, economics and geography.

AT&T and other funding partners are bridging these schools with a wider, more powerful world of telecommunications. But how much can telecommunications contribute to central needs for cultural diversity and school reform? If students from the two schools become involved in virtual, but still shared activities, will there be an effect on attitudes about race? Can the intelligent application of computer-related technology in

schools address the issue of racial and economic disparity between school districts better than court-ordered busing did?

Answers are likely to lie somewhere between the enthusiasms of technophiles and the cynicism of technophobes. Technology will not make racism disappear. And, teachers do not believe that computer-related technology is the (single) answer to the knotty problem of school reform. Keeping in mind the relative slenderness of this (mostly) in-school telecommunications intervention, Cyberspace Regionalization will not be able to change a family's employment circumstances or re-balance the images of commercial television or make store clerks polite and accepting; time spent with Cyberspace Regionalization is a small fraction of a student's life. How significant that fraction is will be addressed through the evaluation. The important questions are not binary ('Yes it does', 'No it doesn't') but rather, how much and how little and under what circumstances.

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1. Orfield, G. & Yun, J.T. (June 1999). *Resegregation in American Schools*. The Civil Rights Project, Harvard University: Cambridge, MA.

2. Among the many major school districts recently ending or phasing out their desegregation plans are Buffalo, NY; Broward County (Ft. Lauderdale), FL; Clark County (Las Vegas), NV; Nashville-Davidson County, TN; Duval County (Jacksonville), FL; Mobile, AL; Minneapolis, MN; Cleveland, OH; San Jose, CA; Seattle, WA; and Wilmington, DE.

3. Kahlenberg, R.D. "Economic School Desegregation." *Education Week*. March 31, 1999.

4. *Brown v. Board of Education*, 347 U.S. 483, (1954).

5. AT&T provided a $500,000 grant for teacher training. Much of the Asbury Park staff was trained by Hunterdon Central faculty. Compaq Computer also provided 175 Pentium II computers for the project. Most of those machines replaced a handful of old 486 and 386 computers at Asbury Park. This narrowing of the "digital divide" between the two schools is not an outcome which should be considered lightly.

6. Allport, G.W. (1954). *The Nature of Prejudice*. Reading, MA: Addison-Wesley.

7. Brigham, J.G. (1993). College Students' Racial Attitudes. *Journal of Applied Social Psychology*, 23, 1933-1967.

8. Kinder, D.R. & Sears, D.O. (1981). Prejudice and Politics: Symbolic Racism Versus Racial Threats to the Good Life. *Journal of Personality and Social Psychology*, 40, 414-31.

9. McConahay, J.B. (1986). Modern Racism, Ambivalence and the Modern Racism Scale. In J.F. Dovidio & S.L. Gaertner (Eds.), *Prejudice, Discrimination and Racism: Theory and Research* (pp. 91-126), Orlando, FL: Academic Press.

10. Gaertner, S.L., & Dovidio, J.F. (1986). The Aversive Form of Racism. In J.F. Dovidio & S.L. Gaertner (Eds.), Prejudice, Discrimination and Racism: *Theory and Research* (pp. 61-89), Orlando, FL: Academic Press.

11. The idea for developing two different instruments for the two schools was taken from Brigham.

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[Documenting the Effects of Instructional Technology: A Fly-Over of Policy Questions]